

2.48
2

(10) $f' = \frac{x^2 - 3x + 2 - x(2x - 3)}{(x^2 - 3x + 2)^2}$

יגזור את f'

$f'(0) = \frac{2}{4} = \frac{1}{2}$

$y = \frac{1}{2}x$ פרמטר נקודת $m = \frac{1}{2}$ $(0, 0)$

(11) $f' = \frac{-x^2 + 2}{(x-2)^2(x-1)^2} \rightarrow f' = 0 \rightarrow x = \pm\sqrt{2}$

$x > 2$
 $\sqrt{2} < x < 2$
 $x < -2$

מציא $-\sqrt{2} < x < 1$ $1 < x < \sqrt{2}$ $\sqrt{2}$

-2	$-\sqrt{2}$	0	1	$\frac{1}{4}$	$\sqrt{2}$	$\frac{1}{2}$	2	3
-	+	+	+	+	-	-	-	-
	min			max				

$\max (f(\frac{\sqrt{2}}{2}))$
 $\min (f(\frac{\sqrt{2}}{2}))$

(3) $\lim_{x \rightarrow 2^+} \frac{x}{x^2 - 3x + 2} = \frac{2}{+0} = \infty$ $\lim_{x \rightarrow 2^-} \frac{2}{-0} = -\infty$

$\lim_{x \rightarrow 1^+} \frac{x}{x^2 - 3x + 2} = \frac{1}{-0} = -\infty$ $\lim_{x \rightarrow 1^-} \frac{1}{+0} = \infty$

$n = \lim_{x \rightarrow \infty} \frac{x}{x^2 - 3x + 2} = \frac{\frac{1}{x}}{1 - \frac{3}{x} + \frac{2}{x^2}} = \frac{0}{1} = 0 \leftarrow m = \lim_{x \rightarrow \infty} \frac{x}{x(x^2 - 3x + 2)} = \frac{1}{x^2 - 3x + 2} = 0$

$x \rightarrow -\infty$ נקודת נקודת $y = 0$ \hat{c}

